Roll No. ....

DD-473

M. Sc. (Second Semester)
EXAMINATION, May/June, 2020

COMPUTER SCIENCE

Paper Second

(Advanced Computer Networks)

Time : Three Hours

Maximum Marks : 100

Note : Attempt any *two* parts from each question. All questions carry equal marks.

1. (a) What is Computer Network ? Discuss various components of Data communication along with mode of data transmission.

   (b) Explain ISO-OSI Reference Model.

   (c) Compare and contrast OSI and TCP/IP Reference Model.

2. (a) What is transmission media ? Explain Baseband Co-axial and Broad-band Co-axial.

   (b) Explain RS-232 C and RS-449.

   (c) What is Multiplexing ? Explain FDM and TDM.

3. (a) Explain Sliding-Window flow control mechanism.

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(b)   What is congestion ? Describe its control strategy in brief, consider economic feasibility.

(c)   What is traffic shaping ? Explain the Leaky Bucket algorithm.

4. (a)   Explain briefly the structure of message format of TCP data segment.

(b)   What is Electronic Mail ? Explain architecture and services of e-Mail.

(c)   Explain the ATM reference model and explain what the various services are provided by it.

5. (a)   Describe the format of X. 25 protocol.

(b)   Explain about ISDN services and layers.

(c)   What is firewall ? Explain the types of firewalls with neat diagram.

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